*AMENDMENTS TO THE CLAIMS*

This listing of claims replaces all prior versions, and listings, of claims in the application.

1-35. (Cancelled)

36. (Currently Amended) A recombinant vector containing an infectious herpes virus ~~viral~~ genomic sequence larger than 100 kb and all or a portion of a bacterial artificial chromosome (BAC), wherein said all or a portion of the BAC enables replication of the recombinant vector in a host cell.

37. (Previously Presented) The recombinant vector of claim 36, wherein the infectious viral genomic sequence is larger than 200 kb.

38.-39. (Cancelled)

40. (Currently Amended) The recombinant vector of claim 36 ~~39~~, wherein said herpes virus is a beta herpes virus.

41. (Previously Presented) The recombinant vector of claim 40, wherein said beta herpes virus is a human cytomegalovirus.

42. (Previously Presented) The recombinant vector of claim 40, wherein said beta herpes virus is a mouse cytomegalovirus.

43. (Previously Presented) The recombinant vector of claim 39, wherein said herpes virus is a gamma herpes virus.

44. (Previously Presented) The recombinant vector of claim 43, wherein said gamma herpes virus is murine gamma herpes virus 68 (MHV 68).

45. (Previously Presented) The recombinant vector of claim 36, wherein said all or a portion of the BAC is flanked by nucleotide sequences which are identical to each other and which, upon homologous recombination, enable excision of said all or a portion of the BAC from the recombinant vector.

46. (Previously Presented) The recombinant vector of claim 36, wherein said all or a portion of the BAC is flanked by (i) recognition sequences for sequence-specific recombinases, (ii) unique restriction enzyme sites, or (iii) recognition sequences for sequence-specific recombinases and unique restriction enzyme sites.

47. (Original) The recombinant vector of claim 46, wherein the recognition sequences are loxP sites.

48. (Previously Presented) The recombinant vector of claim 36, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

49. (Previously Presented) The recombinant vector of claim 45, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

50. (Previously Presented) The recombinant vector of claim 46, which further contains (i) a selection gene, (ii) a marker gene, or (iii) a selection gene and a marker gene.

51. (Original) A cell containing a recombinant vector of claim 36.

52. (Original) A cell containing a recombinant vector of claim 45.

53. (Original) A cell containing a recombinant vector of claim 46.

54. (Original) A cell containing a recombinant vector of claim 48.

55. (Original) A cell containing a recombinant vector of claim 49.

56. (Original) A cell containing a recombinant vector of claim 50.

57. (Previously Presented) A method of producing a recombinant vector of claim 36, which method comprises:

(a) introducing into a host cell containing infectious viral genomic sequences all or a portion of a BAC, wherein said all or a portion of the BAC enables replication in the host cell of a recombinant vector of which it is comprised, and

(b) recombining all or a portion of the BAC, as has been introduced into the host cell, with the infectious viral genomic sequences,

whereupon the recombinant vector is obtained.

58. (Original) The method of claim 57, wherein step (b) is carried out by homologous recombination.

59. (Original) The method of claim 57, wherein said host cell is a eukaryotic cell.

60. (Original) The method of claim 59, wherein said eukaryotic cell is a mammalian cell.

61. (Original) The method of claim 60, wherein said mammalian cell is a primary fibroblast, a human foreskin fibroblast (HFF), or a mouse embryonic fibroblast.

62. (Original) The method of claim 61, wherein said primary fibroblast is an NIH3T3 fibroblast.

63. (Currently Amended) The method of claim 57, wherein said BAC ~~cloning vehicle sequence~~ is introduced into the host cell by calcium phosphate precipitation, lipofection or electroporation.

64. (Currently Amended) The method of claim 57, wherein said BAC ~~cloning vehicle sequence~~ is introduced into the host cell by a viral vector.

65. (Original) The method of claim 57, wherein said host cell is a bacterial organism.

66. (Original) The method of claim 65, wherein said bacterial organism is *Escherichia coli*.

67. (Previously Presented) A method of mutagenizing an infectious viral genomic sequence in a recombinant vector of claim 36, which method comprises:

(a) introducing the recombinant vector of claim 36 into a bacterial host cell, which contains mutagenizing DNA molecules, and

(b) mutagenizing the infectious viral genomic sequence in the recombinant vector.

68. (Currently Amended) The method of claim 67, wherein step (b) is carried out by homologous recombination between the recombinant vector and the mutagenizing DNA molecules.

69. (Previously Presented) The method of claim 68, wherein there is a mutant allele in the mutagenizing DNA molecules and the homologous recombination is carried out between the recombinant vector and the mutant allele.

70. (Previously Presented) The method of claim 67, wherein there is a transposon in the mutagenizing DNA molecules and step (b) is carried out by the transposon.

71. (Currently Amended) A recombinant vector obtained by ~~in accordance with~~ the method of claim 67, wherein the recombinant vector contains a mutagenized viral genomic sequence larger than 100 kb.

72. (Previously Presented) The recombinant vector of claim 71 ~~67~~, which contains a mutagenized viral genomic sequence that is larger than 200 kb.